

## Jeffre C. Johnson, Research Chemist, in EPA's National Exposure Research Laboratory

Exposure Methods and Measurements Division

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**Area of Expertise:** Jeffre's expertise is in matching the emergent high performance computing needs of current and future pharmacokinetic modeling studies within HEASD/EDRB with the development of the necessary higher throughput algorithms. In particular, linkage of stochastic exposure models with PBPK models, an emergent area, will tax current PBPK modeling systems beyond the limits of computational tractability. Thus, Jeffre is developing PBPK models for high performance computing (HPC) environments, with end targets being parallelized, high throughput PBPK models.

Jeffre has extensive expertise in PBPK modeling within the framework of the exposure related dose estimating model (ERDEM) in particular with regard to n-methyl carbamate cumulative risk assessment for carbaryl, aldicarb, and carbofuran.

### Select Publications:

Johnson, J. C., Van Emon, J. M., Clarke, A. N., Wamsley, B. N. Quantitative ELISA of Polychlorinated Biphenyls in an Oily Soil Matrix Using Supercritical Fluid Extraction, *Analytica Chimica Acta*, 428(2), 191-199, 2001.

Van Emon, J. M., Gerlach, C. L., Johnson, J. C., Immunoassay Test Kits in Environmental Monitoring in Current Issues in Regulatory Chemistry, pp. 135-150, AOAC International, Gaithersburg, MD, 2000.

Chuang, J. C., Miller, L. S., Davis, D. B., Peven, C. S., Johnson, J. C., Van Emon, J. M. Analysis of Soil and Dust Samples for Polychlorinated Biphenyls by Enzyme-linked Immunosorbent Assay (ELISA), *Analytica Chimica Acta*, 376(1): 67-75, 1998.

Johnson, J. C., Van Emon, J. M., Pullman, D. R., Keeper, K. R. Development and Evaluation of Antisera for Detection of the O,O-Diethyl Phosphorothionate and Phosphorothionothiolate Organophosphorous Pesticides by Immunoassay *Journal of Agricultural and Food Chemistry*, 46(8): 3116-3123, 1998.

Johnson, J. C., Van Emon, J. M. Quantitative Enzyme-linked Immunosorbent Assay for Determination of Polychlorinated Biphenyls in Environmental Soil and Sediment Samples *Analytical Chemistry*, 68(1): 162-169, 1996.

Johnson, J. C., Van Emon, J. M. Development and Evaluation of a Quantitative Enzyme Linked Immunosorbent Assay (ELISA) for Polychlorinated Biphenyls EPA/600/R-94/113, June 1994.

View more research publications by [Jeffre Johnson](#).

**Education:**

- M.S., Chemistry, University of Illinois at Urbana-Champaign, 1987
- B.S., Chemistry, University of Wisconsin-Madison, 1982
- Graduate level studies in computer science, Algorithmics, UNLV dept of Computer Science

**Professional Experience:**

- Research Chemist, USEPA, NERL, 1991-present
- Chemist, USDA, ARS, WHNRC, 1988-1991
- Chemist, Tucson Water, 1987